
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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MOLYBDENUM IN SEPTEMBER 1997

Domestic production of molybdenum in concentrate increased 5% in September 1997 compared with that of the previous month and was 10% more than in September 1996, according to the U.S. Geological Survey. Producer molybdenum stocks in concentrate, oxide, and other product forms were 8,250 metric tons at the beginning of 1997 and 7,210 metric tons at the end of September 1997.

Included in this Mineral Industry Surveys are U.S. production, shipments, and stocks of molybdenum concentrates and materials, plus U.S. consumption by end use of molybdenum in the previous and current months. Also included are trade data for the previous 2 months. During the current month, Platt's

Metals Week U.S. monthly average price for molybdenum concentrate was \$4.960 per kilogram (\$2.250 per pound). The average price for dealer molybdenum oxide was \$9.424 per kilogram (\$4.275 per pound) and that for dealer ferromolybdenum was \$11.794 per kilogram (\$5.350 per pound).

For the week ending November 14, 1997, Metals Week U.S. average price for molybdenum concentrate was \$4.960 per kilogram (\$2.250 per pound). The average price for dealer molybdenum oxide was \$7.904 per kilogram (\$3.585 per pound) and that for ferromolybdenum was \$11.023 per kilogram (\$5.000 per pound).

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS 1/

(Metric tons, contained molybdenum)

	1996	1997		
		August	September	Year to date
Production	56,000	4,970 r/	5,220	46,000
Shipments: 2/				
Domestic	16,100	736	940	9,330
Export	19,700	2,020 r/	1,840	15,600

r/ Revised.

1/ Data are rounded to three significant digits.

2/ Includes molybdc oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 2
U.S. REPORTED PRODUCTION AND SHIPMENTS OF MOLYBDENUM PRODUCTS 1/

(Metric tons, contained molybdenum)

	1996	1997		
		August	September	Year to date
Gross production	46,300	5,110	4,500	35,800
Internal consumption 2/	23,900	2,310	1,920	17,200
Gross shipments	24,100	2,130	2,390	20,000

1/ Data are rounded to three significant digits.

2/ Includes molybdc oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 3
U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS 1/ IN 1997

(Kilograms, contained molybdenum)

End use	Molybdc oxides	Ferro molyb- denum 2/	Ammonium and sodium molybdate	Molyb- denum scrap	Other	Total
August:						
Steel:						
Carbon	59,200	W	--	--	3,190	62,400
High-strength low-alloy	52,200	8,990	--	--	--	61,200
Stainless and heat-resisting	236,000 r/	26,700	--	--	4,700	268,000 r/
Full alloy	228,000 r/	150,000	--	--	2,330	381,000 r/
Tool	102,000 r/	8,060	--	--	2,310	112,000 r/
Total	678,000 r/	194,000	--	--	12,500	884,000 r/
Cast irons (gray, malleable, and ductile iron)	1,670	53,400	--	--	763	55,800
Superalloys	75,100 r/	12,700 r/	--	50,600	39,900 r/	178,000 r/
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	534	285 r/	819 r/
Other alloys 3/	--	W	--	--	6,150	6,150
Mill products made from metal powder 4/	--	--	--	--	159,000 r/	159,000 r/
Cemented carbides and related products 5/	--	--	--	--	24	24
Chemical and ceramic uses:						
Pigments	--	--	1,420	--	--	1,420
Catalysts	77,300	--	W	--	14,900	92,200
Other 6/	(7/)	--	--	--	2,660	2,660
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,600	10,600
Other	(8/)	30,200 r/	75,600	--	--	106,000 r/
Grand total	832,000 r/	290,000 r/	77,000	51,200 r/	247,000 r/	1,500,000 r/
Stocks, August 31, 1997	637,000 r/	219,000 r/	10,700	35,300 r/	813,000	1,710,000 r/

See footnotes at end of table.

TABLE 3--Continued
U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS 1/ IN 1997

(Kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molyb- denum 2/	Ammonium and sodium molybdate	Molyb- denum scrap	Other	Total
September:						
Steel:						
Carbon	46,400	W	--	--	3,190	49,600
High-strength low-alloy	53,500	9,450	--	--	--	62,900
Stainless and heat-resisting	223,000	22,100	--	--	4,700	250,000
Full alloy	219,000	196,000	--	--	2,330	418,000
Tool	107,000	7,830	--	--	2,310	117,000
Total	650,000	236,000	--	--	12,500	898,000
Cast irons (gray, malleable, and ductile iron)	1,670	57,500	--	--	763	60,000
Superalloys	75,100	12,700	--	51,000	38,800	178,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	285	285
Other alloys 3/	--	274	--	534	6,150	6,960
Mill products made from metal powder 4/	--	--	--	--	164,000	164,000
Cemented carbides and related products 5/	--	--	--	--	14	14
Chemical and ceramic uses:						
Pigments	--	--	1,280	--	--	1,280
Catalysts	77,300	--	W	--	14,900	92,200
Other 6/	(7/)	--	--	--	2,660	2,660
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	9,730	9,730
Other	--	28,100	75,600	--	--	104,000
Grand total	804,000	334,000	76,900	51,500	250,000	1,520,000
Stocks, September 30, 1997	583,000	320,000	10,400	35,300	811,000	1,760,000

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other" of the "Miscellaneous and unspecified uses" category.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes calcium molybdate.

3/ Includes magnetic and nonferrous alloys.

4/ Includes ingot, wire, rod, and sheet.

5/ Includes construction, mining, oil and gas, metal working machinery.

6/ Includes ground coat, glass, silicone, electroplating, and drier in paint or related uses.

7/ Withheld to avoid disclosing company proprietary data.

8/ Revised to zero.

TABLE 4
U. S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES
(Including roasted concentrate), BY COUNTRY 1/

(Kilograms, contained molybdenum)

Country	1996	1997		
		July	August	Year to date
Australia	60,900	--	9,800	62,100
Belgium	12,400,000	583,000	491,000	10,400,000
Brazil	20,400	--	--	32,400
Canada	268,000	53,700	37,600	315,000
Chile	6,990,000	492,000	594,000	4,180,000
China	1,290,000	--	30,900	313,000
France	5,620	--	--	143
Germany	505,000	--	134,000	478,000
India	58,600	--	--	--
Italy	384,000	19,300	19,000	194,000
Japan	5,140,000	289,000	445,000	4,180,000
Korea, Republic of	10,200	--	272	272
Mexico	5,500,000	566,000	534,000	3,390,000
Netherlands	5,890,000	499,000	166,000	10,900,000
Spain	19,900	--	18,400	84,000
Sweden	473,000	109,000	39,800	605,000
United Kingdom	6,010,000	75,000	215,000	3,410,000
Other	--	--	331	9,870
Total	45,000,000	2,690,000	2,730,000	38,500,000

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 5
U. S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY 1/

(Kilograms, contained molybdenum)

Country	1996	1997		
		July	August	Year to date
Australia	--	--	--	546
Canada	252,000	34,800	69,500	324,000
China	--	--	--	130
Italy	--	--	--	3,170
Japan	117,000	8,010	5,350	36,400
Korea, Republic of	1,910	--	--	1,970
Malaysia	37,200	--	--	--
Mexico	117,000	8,290	8,580	88,300
Singapore	53,900	--	--	--
Spain	1,160	--	--	--
Taiwan	--	1,000	3,030	10,600
Venezuela	1,090	--	--	--
Other	--	--	--	--
Total	581,000	52,100	86,400	465,000

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS 1/

(Kilograms unless otherwise specified)

Material	1996			1997		
	January-December			January-August		
	Gross weight	Contained molybdenum	Value (c.i.f.) (thousands)	Gross weight	Contained molybdenum	Value (c.i.f.) (thousands)
Ore and concentrates roasted	8,090,000	5,460,000	\$41,300,000	5,480,000	3,410,000	\$33,600,000
Ore and concentrates other	35,600	21,100	173,000	1,520,000	807,000	5,910,000
Molybdenum chemicals:						
Oxides and hydroxides	1,160,000	--	8,850,000	1,070,000	--	8,550,000
Molybdates of ammonium	665,000	368,000	5,360,000	538,000	276,000	4,310,000
Molybdates (all others)	82,500	36,400	506,000	141,000	96,300	853,000
Molybdenum orange	1,840,000	--	5,710,000	1,050,000	--	3,610,000
Mixtures of inorganic compounds	--	--	--	--	--	--
Ferromolybdenum	7,870,000	4,960,000	55,100,000	3,620,000	2,260,000	23,600,000
Molybdenum powders	125,000	110,000	3,470,000	59,400	52,200	2,060,000
Molybdenum unwrought	91,100	84,400	2,380,000	252,000	235,000	3,330,000
Molybdenum waste and scrap	693,000	640,000	9,720,000	382,000	374,000	6,190,000
Molybdenum wrought	--	--	--	--	--	--
Molybdenum wire	1,990	--	320,000	2,130	--	294,000
Molybdenum other	3,870	--	1,060,000	4,360	--	781,000
Total	20,700,000	11,700,000	134,000,000	14,100,000	7,510,000	93,100,000

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.